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OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			DANIEL JR, WILLIE J	
			ART UNIT	PAPER NUMBER
			2686	

DATE MAILED: 11/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/052,458

Applicant(s)

JECHOUX, BRUNO

Examiner

Willie J. Daniel, Jr.

Art Unit

2686

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 February 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No: \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. This action is in response to applicant's amendment filed on 09 February 2005. **Claims 1-14** are now pending in the present application.

#### *Election/Restrictions*

2. Newly submitted claim 13 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:
  - a. **Claim 13** recites "...generating a **matrix**..." on pg. 8, line(s) 4 of the claim.
  - b. **Claim 14** recites "...selecting a subset of combinations of values..." on pg. 9, line(s) 4 of the claim. The limitations of the claim 14 are related to the limitations of claim 13.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 13 withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

#### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

**Claim 8** is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the

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relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

**Claim 8** recites the limitation "...a · X..." in line 2 on pg. 6.

Regarding **Claim 8**, the claim includes a limitation that is not supported by the specification as originally filed or in the substitute specification. The applicant is advised to review the cited subject matter of the substitute specification (see pg. 8, line 14), which states "...a.X...". The Examiner respectfully requests the applicant to provide page(s), line(s), and figure(s) of the instant application that supports the limitation of the claim(s) and/or any supportive comment(s) to help clarify and resolve this issue(s). As a result of this rejection, the amended claim 8 has not been further treated on the merits.

**Claim 8** is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

**Claim 8** recites the limitation "...a · X..." in line 2 on pg. 6 in which the substitute specification states "...a.X..." on pg. 8, line 14. The Examiner respectfully questions the solving of the mathematical equation as supported by the substitute specification. Also, the Examiner respectfully requests applicant to indicate whether "mod" (or modulus) is as applied in mathematical arithmetic or an operator/command in a computer language. In order to help clarify and resolve this issue(s), the Examiner respectfully requests the

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applicant to provide page(s), line(s), and figure(s) of the instant application that supports the limitation of the claim(s) and/or any supportive comment(s).

4. This list of examples is not intended to be exhaustive. The Examiner respectfully requests the applicant to review all claims and clarify the issues as listed above as well as any other issue(s) that are not listed.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**Claim 6** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "substantially" in claim 6 is a relative term which renders the claim indefinite. The term "higher" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

### *Specification*

6. The objection to the specification is withdrawn, as the proposed substitute specification corrections are approved.

*Claim Objections*

7. **Claims 8-10** are objected to because of the following informalities:

- a. **Claim 8** recites the limitation "...the seed..." in line(s) 4 on pg. 6. There is insufficient antecedent basis for this limitation in the claim and the claim is being considered as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Also, the Examiner requests applicant to clarify the claim language on pg. 6, line 4 to clearly indicate which variable  $x_0$  or N represents "...seed...".
- b. **Claim 8** recites the variables "...a..." and "...i..." in the equation on pg. 6, line(s) 2. The Examiner requests applicant to clarify or define the variables.
- c. **Claim 9** recites the limitation "...the allocating..." in line(s) 6 of the claim. There is insufficient antecedent basis for this limitation in the claim and the claim is being considered as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner interprets as "...dynamic allocation..." as stated in line(s) 1 of the claim 1. Also, the Examiner requests the applicant to be consistent and use the exact terminology as applicable.
- d. **Claim 10** is dependent on "...claim 1..." as recited in line 2 of the claim. The Examiner interprets as "...claim 3..." due to claim 3 reciting "...generating..." and "...parameters...".
- e. **Claim 10** recites "...parameters..." in line 3 of the claim. The Examiner interprets as "...parameters...".

Appropriate correction is required.

8. This list of examples is not intended to be exhaustive. The Examiner respectfully requests the applicant to review all claims and clarify the issues as listed above as well as any other issue(s) that are not listed.
9. The objections to claims 4-10 are withdrawn, as the proposed claim corrections are approved (see office action mailed on 09 September 2004).

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-3, 5, and 7** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Suzuki (US 6,256,356 B1)** in view of **Flammer, III et al. (hereinafter Flammer) (US 5,515,369)**.

Regarding **Claim 1**, Suzuki discloses a method for dynamic allocation of transmission resources to a plurality of communications between a base station and a plurality of mobile terminals, each resource consisting of a plurality of possible values, an control section (20) which reads on the claimed "allocation controller" associated with the base station, referred to as the fast allocation controller (20), being able to allocate to the said communications only certain combinations of possible values, referred to as available resources (see col. 8, line 66 - col. 9, line 22; col. 10, line 60 - col. 12, line 21; Figs. 2-5B), where the resources (e.g., band and time slots) of the system are allocated to communications with the base station and terminal units. Suzuki fails to disclose having the feature wherein

said fast allocation controller generates a pseudo-random sequence and performs the allocation by selecting at least one available resource for each communication according to a value of the pseudo-random sequence. However, the examiner maintains that the feature wherein said fast allocation controller generates a pseudo-random sequence and performs the allocation by selecting at least one available resource for each communication according to a value of the pseudo-random sequence was well known in the art, as taught by Flammer.

In the same field of endeavor, Flammer discloses the feature wherein said pseudo-random number generator which reads on the claimed “fast allocation controller” generates a pseudo-random sequence and performs the allocation by selecting at least one available resource for each communication according to a value of the said pseudo-random sequence (see col. 4, lines 36-62; Fig. 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Suzuki and Flammer to have the feature wherein said fast allocation controller generates a pseudo-random sequence and performs the allocation by selecting at least one available resource for each communication according to a value of the pseudo-random sequence, in order to allocate resources according to the useable channels, as taught by Flammer.

Regarding **Claim 2**, Suzuki discloses of the feature wherein combination of available resources are allocated (see col. 8, line 66 - col. 9, line 22; col. 10, line 60 - col. 12, line 21; Figs. 2-5B), where the resources combination (e.g., frequency band and time slots) of the system are allocated to communications with the base station and terminal units. Suzuki fails to disclose having the feature further comprising sequentially indexing each of the available



resources and available resources is allocated if an index is equal to a value in the pseudo-random sequence. However, the examiner maintains that the feature further comprising sequentially indexing each of the available resources and available resources is allocated if an index is equal to a value in the pseudo-random sequence was well known in the art, as taught by Flammer.

Flammer further discloses the feature further comprising sequentially indexing each of the available resources and available resources is allocated if an index is equal to a value in the pseudo-random sequence (see col. 4, lines 36-62; Fig. 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Suzuki and Flammer to have the feature further comprising sequentially indexing each of the available resources and available resources is allocated if an index is equal to a value in the pseudo-random sequence, in order to allocate resources according to the useable channels, as taught by Flammer.

Regarding **Claim 3**, Suzuki the feature further comprising transmitting parameters for generating the pseudo-random sequence from the base station to the terminal units which reads on the claimed "mobile terminals" (see col. 9, lines 13-22; col. 10, lines 18-40; Figs. 2-5). Suzuki fails to disclose having the feature generating pseudo-random sequence by the mobile terminals from the generation parameters. However, the examiner maintains that the feature generating pseudo-random sequence by the mobile terminals from the generation parameters was well known in the art, as taught by Flammer.

Flammer further discloses the feature generating pseudo-random sequence by the target node which reads on the claimed "mobile terminals" from the generation parameters (see col. 3, line 52 - col. 4, line 9; col. 4, lines 28-62; Figs. 1-2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Suzuki and Flammer to have the feature generating pseudo-random sequence by the mobile terminals from the generation parameters, in order to allocate resources according to the useable channels, as taught by Flammer.

Regarding **Claim 5**, the combination of Suzuki and Flammer discloses every limitation claimed, as applied above (see claim 1), in addition Suzuki further discloses the method according to claim 1, further comprising an item (e.g., data) of information supplying the resources available at a base station to the mobile terminals which it serves (see col. 6, lines 32-37; col. 7, lines 1-10; col. 8, line 66 - col. 9, line 22; Figs. 6-7), where the data required for assigning resources is transmitted to the terminal units.

Regarding **Claim 7**, the combination of Suzuki and Flammer discloses every limitation claimed, as applied above (see claim 1), in addition Suzuki further discloses wherein the resources include at least one of transmission time slots, spectral spreading codes intended to separate the different communications and transmission frequencies (see col. 3, lines 29-38, 50-59; Figs. 3 and 5A-B).

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**Claims 4, 6, and 11-12** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Suzuki (US 6,256,356 B1)** in view of **Flammer, III et al.** (hereinafter **Flammer**) (**US 5,515,369**) as applied to claim 1 above, and further in view of **Almgren et al.** (hereinafter **Almgren**) “**Adaptive Channel Allocation in TACS**”.

Regarding **Claim 4**, the combination of Suzuki and Flammer discloses every limitation claimed, as applied above (see claim 1), in addition Suzuki further discloses wherein the transmission resources of a plurality of adjacent base stations (see col. 2, line 62-64; col. 3, lines 29-32; Figs. 6-7), where the system has multiple base stations to allocate resources to the mobile stations in which the plurality of adjacent base stations would be inherent in a cellular radio telephone system. Also, a controller would be inherent for controlling the base stations. The combination of Suzuki and Flammer fails to disclose having the feature base stations are controlled by a slow allocation controller, the resources available for each base station are determined regularly, at a first frequency, by the said slow allocation controller and transmitted by the slow allocation controller to the fast allocation controllers associated with the said base stations. However, the examiner maintains that the feature base stations are controlled by a slow allocation controller, the resources available for each base station are determined regularly, at a first frequency, by the said slow allocation controller and transmitted by the slow allocation controller to the fast allocation controllers associated with the said base stations was well known in the art, as taught by Almgren.

In the same field of endeavor, Almgren discloses the feature base stations are controlled by a slow ACA algorithm which reads on the claimed “slow allocation controller”, the resources available for each base station are determined regularly, at a first frequency, by

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the said slow allocation controller and transmitted by the slow allocation controller to the fast ACA algorithm which reads on the claimed “fast allocation controllers” associated with the said base stations (see pg. 1518, right col. section C, lines 1-15; left col., section B; 1-4).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Suzuki, Flammer, and Almgren to have the feature base stations are controlled by a slow allocation controller, the resources available for each base station are determined regularly, at a first frequency, by the said slow allocation controller and transmitted by the slow allocation controller to the fast allocation controllers associated with the said base stations, in order to eliminate frequency planning, to increase capacity, and improve the quality of the system, as taught by Almgren (see pg. 1517, left col., abstract, lines 3-5).

Regarding **Claim 6**, the combination of Suzuki and Flammer fails to disclose having the feature wherein the performing the allocation allocates the resources available at the base station at a second frequency substantially higher than the first frequency. However, the examiner maintains that the feature wherein the performing the allocation allocates the resources available at the base station at a second frequency substantially higher than the first frequency was well known in the art, as taught by Almgren.

Almgren further discloses the feature wherein the performing the allocation allocates the resources available at the base station at a second frequency (e.g., short term) substantially higher than the first frequency (e.g., long time period) (see pg. 1518, right col., section II. C, lines 15-26; pg. 1517, right col., section I., lines 8-12; pg. 1517, left, abstract, lines 15-17), where the system for allocation has a slow ACA which uses a larger time

constant such as few hours or several days and a fast ACA which uses a short time constant to allocate channel assignment for arriving calls.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Suzuki, Flammer, and Almgren to have the feature wherein the performing the allocation allocates the resources available at the base station at a second frequency substantially higher than the first frequency, in order to eliminate frequency planning, to increase capacity, and improve the quality of the system, as taught by Almgren (see pg. 1517, left col., abstract, lines 3-5).

Regarding **Claim 11**, Suzuki discloses a communication system including:

a plurality of adjacent base stations including a base station (see col. 2, line 62-64; col. 3, lines 29-32; Figs. 6-7), where the system has multiple base stations to allocate resources to the mobile stations in which the plurality of adjacent base stations would be inherent in a cellular radio telephone system;

a plurality of mobile terminals, each mobile terminal having a communication transmitted from the base station in the plurality of adjacent base stations (see col. 2, line 62-64; col. 3, lines 29-32; Figs. 6-7), where the system has multiple base stations to allocate resources to the mobile stations in which the plurality of adjacent base stations would be inherent in a cellular radio telephone system;

a plurality of transmission resources, each transmission resource including a plurality of possible values that may be allocated to the communications of the plurality mobile terminals (see col. 8, line 66 - col. 9, line 22; col. 10, line 60 - col. 12, line 21; Figs. 2-5B), where the

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resources (e.g., band and time slots) of the system are allocated to communications with the base station and terminal units;

said base station further configured to transmit a first communication to a first terminal in the plurality of mobile terminals and a second communication to a second terminal in the plurality of mobile terminals according to the allocated resources (see col. 8, line 66 - col. 9, line 22; col. 10, line 60 - col. 12, line 21; Figs. 2-5B), where the resources (e.g., band and time slots) of the system are allocated to communications with the base station and terminal units in which the first and second terminal units using a first and second communication would be inherent for the base station to communicate with different terminal units. Suzuki fails to disclose having the feature a fast allocation controller associated with the base station and configured to generate a pseudo-random sequence, transmit a seed for generating the pseudo-random sequence to the plurality of mobile terminals, and allocate the available resources to each communication in the plurality of communications from the base station to the plurality of mobile terminals according to a value of the pseudo-random sequence; a slow allocation controller configured to determine, at a first frequency, available resources for each base station, the available resources including a subset of the possible values, said slow allocation controller further configured to transmit the available resources to the fast allocation controller; and said mobile terminals further configured to generate the pseudo-random sequence from the seed. However, the examiner maintains that the feature a fast allocation controller associated with the base station and configured to generate a pseudo-random sequence, transmit a seed for generating the pseudo-random sequence to the plurality of mobile terminals, and allocate the available resources to each communication in the

plurality of communications from the base station to the plurality of mobile terminals according to a value of the pseudo-random sequence; and said mobile terminals further configured to generate the pseudo-random sequence from the seed was well known in the art, as taught by Flammer.

Flammer further discloses the feature a fast allocation controller associated with the base station and configured to generate a pseudo-random sequence, transmit a seed for generating the pseudo-random sequence to the plurality of mobile terminals, and allocate the available resources to each communication in the plurality of communications from the base station to the plurality of mobile terminals according to a value of the pseudo-random sequence (see col. 4, lines 36-62; Fig. 2);

said mobile terminals further configured to generate the pseudo-random sequence from the seed (see col. 3, line 52 - col. 4, line 9; col. 4, lines 28-62; Figs. 1-2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Suzuki and Flammer to have the feature a fast allocation controller associated with the base station and configured to generate a pseudo-random sequence, transmit a seed for generating the pseudo-random sequence to the plurality of mobile terminals, and allocate the available resources to each communication in the plurality of communications from the base station to the plurality of mobile terminals according to a value of the pseudo-random sequence; and said mobile terminals further configured to generate the pseudo-random sequence from the seed, in order to allow individualized seamless elimination of inoperable channels from a particular node's band plan, as taught by Flammer (see col. 2, lines 59-62). The combination of Suzuki and

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Flammer fails to disclose having the feature a slow allocation controller configured to determine, at a first frequency, available resources for each base station, the available resources including a subset of the possible values, said slow allocation controller further configured to transmit the available resources to the fast allocation controller. However, the examiner maintains that the feature a slow allocation controller configured to determine, at a first frequency, available resources for each base station, the available resources including a subset of the possible values, said slow allocation controller further configured to transmit the available resources to the fast allocation controller was well known in the art, as taught by Almgren.

Almgren further discloses the feature a slow allocation controller configured to determine, at a first frequency, available resources for each base station, the available resources including a subset of the possible values, said slow allocation controller further configured to transmit the available resources to the fast allocation controller (see pg. 1518, right col. section C, lines 1-15; left col., section B; 1-4).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Suzuki, Flammer, and Almgren to have the feature a slow allocation controller configured to determine, at a first frequency, available resources for each base station, the available resources including a subset of the possible values, said slow allocation controller further configured to transmit the available resources to the fast allocation controller, in order to eliminate frequency planning, to increase capacity, and improve the quality of the system, as taught by Almgren (see pg. 1517, left col., abstract, lines 3-5).



Regarding **Claim 12**, the claim is rejected for the same reasons as set forth above in the rejection of claim 11.

**Claim 9** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Suzuki (US 6,256,356 B1)** in view of **Flammer, III et al. (hereinafter Flammer) (US 5,515,369)** as applied to claim 7 above, and further in view of **Jamal et al. (hereinafter Jamal) (US 6,724,813 B1)** and **Bartolome Pascual et al. (hereinafter Bartolome) (US 6,587,449 B1)**.

Regarding **Claim 9**, the combination of Suzuki and Flammer fails to disclose having the feature wherein each base station and the mobile terminals form a portion of a UTRA-TDD mobile telecommunication system, a first subset of available resources is dedicated to uplink communications and a second subset of available resources is dedicated to downlink communications, and wherein the allocating allocates the available resources of the first subset to the uplink communications independently of allocating the available resources of the second subset to the downlink communications. However, the examiner maintains that the feature wherein each base station and the mobile terminals form a portion of a UTRA-TDD mobile telecommunication system was well known in the art, as taught by Jamal.

In the same field of endeavor, Jamal discloses the feature wherein each base station (28) and the CDMA radio transceiver (30) which reads on the claimed “mobile terminals” form a portion of a UTRA-TDD mobile telecommunication system (see col. 4, lines 49-67; Fig. 1)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Suzuki, Flammer, and Jamal to have the

feature wherein each base station and the mobile terminals form a portion of a UTRA-TDD mobile telecommunication system, in order to efficiently allocate communication resources, as taught by Jamal (see col. 2, lines 46-47). The combination of Suzuki, Flammer, and Jamal fails to disclose having the feature a first subset of available resources is dedicated to uplink communications and a second subset of available resources is dedicated to downlink communications, and wherein the allocating allocates the available resources of the first subset to the uplink communications independently of allocating the available resources of the second subset to the downlink communications. However, the examiner maintains that the feature a first subset of available resources is dedicated to uplink communications and a second subset of available resources is dedicated to downlink communications, and wherein the allocating allocates the available resources of the first subset to the uplink communications independently of allocating the available resources of the second subset to the downlink communications was well known in the art, as taught by Bartolome.

In the same field of endeavor, Bartolome discloses the feature a first subset of available resources is dedicated to uplink communications and a second subset of available resources is dedicated to downlink communications, and wherein the allocating allocates the available resources of the first subset to the uplink communications independently of allocating the available resources of the second subset to the downlink communications (see col. 4, lines 10-17, 22-38; Fig. 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Suzuki, Flammer, Jamal, and Bartolome to have the feature a first subset of available resources is dedicated to uplink communications

and a second subset of available resources is dedicated to downlink communications, and wherein the allocating allocates the available resources of the first subset to the uplink communications independently of allocating the available resources of the second subset to the downlink communications, in order to dynamically distribute the radio channels of a TD-CDMA radio communications system, as taught by Bartolome (see col. 2, lines 30-34).

**Claim 10** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Suzuki (US 6,256,356 B1)** in view of **Flammer, III et al.** (hereinafter **Flammer**) (**US 5,515,369**) as applied to claim 1 above, and further in view of **Jamal et al.** (hereinafter **Jamal**) (**US 6,724,813 B1**).

Regarding **Claim 10**, the combination of Suzuki and Flammer fails to disclose having the feature wherein the transmitting transmits the parameters for generating the pseudo-random sequence over the common control channel BCH. However, the examiner maintains that the feature wherein the transmitting transmits the parameters for generating the pseudo-random sequence over the common control channel BCH was well known in the art, as taught by Jamal.

Jamal further discloses the feature wherein the transmitting transmits the parameters for generating the pseudo-random sequence over the common control channel BCH (see col. 6, lines 11-14; col. 8, lines 10-14, 20-24).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Suzuki, Flammer, and Jamal to have the feature wherein the transmitting transmits the parameters for generating the pseudo-random

sequence over the common control channel BCH, in order to efficiently allocate communication resources, as taught by Jamal (see col. 2, lines 46-47).

### ***Response to Arguments***

11. Applicant's arguments filed 09 February 2005 have been fully considered but they are not persuasive.

Examiner respectfully disagrees with applicant's arguments as the applied reference(s) provide more than adequate support and to further clarify (see the above claims and comments in this section).

12. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).
13. Regarding Figs. 1 and 2, the Examiner requests clarification as to whether or not the figures 1 and 2 are --Prior Art-- or illustrations of the invention. The substitute specification on pg. 1 includes both Figures 1 and 2 in the section titled "Discussion of the Background".

### ***Conclusion***

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
- a. Tuma et al. discloses Engineering Mathematics Handbook (4<sup>th</sup> edition).

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Willie J. Daniel, Jr. whose telephone number is (571) 272-7907. The examiner can normally be reached on 7:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold can be reached on (571) 272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

WJD,JR  
31 October 2005

*Marsha D Banks-Harold*  
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